IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An organosilane-based composition for producing a barrier layer for gases, comprising at least one of composition (A), composition (B) and composition (C), wherein:

composition (A) comprises:

(i) at least one organoalkoxysilane ~~having organofunctionality~~ comprising at least one unsaturated hydrocarbon group;

(ii) at least one aminoalkylalkoxysilane;

(iii) at least one polyol;

(iv) optionally a further alkoxysilane or alkoxysiloxane;

(v) optionally at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide; and

(vi) an organic solvent;

composition (B) comprises at least one cocondensate of ~~component (i)~~the at least one organoalkoxysilane, ~~component (ii)~~ the at least one aminoalkylalkoxysilane, ~~component (iii)~~ the at least one polyol, optionally ~~component (iv)~~ the further alkoxysilane or alkoxysiloxane and optionally ~~component (v)~~ the at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, and the organic ~~solvent (vi)~~solvent;

composition (C) comprises a reaction product produced under hydrolysis conditions of ~~component (i)~~ the at least one organoalkoxysilane, ~~component (ii)~~ the at least one aminoalkylalkoxysilane, ~~component (iii)~~ the at least one polyol, optionally ~~component (iv)~~ the further alkoxysilane or alkoxysiloxane and optionally ~~component (v)~~ the at least one

nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, and the organic ~~solvent~~ ~~(vi)~~solvent; ~~and~~

the components of composition (A) and/or the precursors of composition (B) and composition (C) are present such that a molar ratio of ~~component (i)~~ the at least one organoalkoxysilane: ~~component (ii)~~ the at least one aminoalkylalkoxysilane: ~~component (iii)~~ the at least one polyol is 1 : 0.5 to 1.5 : 0.3 to 1.1;

the at least one organoalkoxysilane is at least one member selected from the group consisting of: vinyltrimethoxysilane, vinyltriethoxysilane, 3-methacryloxypropyltrimethoxysilane, 3-methacryloxypropyltriethoxysilane, 3-methacryloxypropylmethyldimethoxysilane, vinylmethyldimethoxysilane, vinylmethyldiethoxysilane, 3-methacryloxypropylmethyldiethoxysilane, 3-acryloxypropyltrimethoxysilane, 3-acryloxypropyltriethoxysilane, 3-acryloxypropylmethyldimethoxysilane, and 3-acryloxypropylmethyidiethoxysilane;

the at least one aminoalkylalkoxysilane is at least one member selected from the group consisting of 3-aminopropyltrimethoxysilane, 3-aminopropyltriethoxysilane, N-phenyl-3-aminopropyltrimethoxysilane, N-phenyl-3-aminopropyltriethoxysilane, N-butyl-3-aminopropyltrimethoxysilane, N-butyl-3-aminopropyltriethoxysilane, N-methyl-3-aminopropyltrimethoxysilane, N-methyl-3-aminopropyltriethoxysilane, N-(2-aminoethyl)-3-aminopropyltrimeth-oxysilane, N-(2-aminoethyl)-3-aminopropyltriethoxysilane, N,N-di(2-aminoethyl)-3-aminopropyltrimethoxysilane, N-[N'-(2-aminoethyl)-2-aminoethyl]-3-aminopropyltrimethoxysilane, N,N-di(2-aminoethyl)-3-aminopropyltriethoxysilane, N-[N'-(2-aminoethyl)-2-aminoethyl]-3-aminopropyltriethoxysilane, 3-aminopropylmethyldimethoxysilane, 3-aminopropylmethyldiethoxysilane, N-butyl-3-aminopropylmethyl-dimethoxysilane, N-butyl-3-aminopropylmethyldiethoxysilane, N-(2-

aminoethyl)-3-aminopropylmethyldimethoxysilane, N-(2-aminoethyl)-3-aminopropylmethyldi-ethoxysilane, N,N-di(2-aminoethyl)-3-aminopropylmethyldimethoxysilane, N-[N' (2-aminoethyl)-2-aminoethyl]-3-aminopropylmethyldimethoxysi lane,N,N-di(2-aminoethyl)-3-aminopropylmethyldiethoxysilane, and N-[N'-(2-aminoethyl)-2-amino-ethyl]-3-aminopropylmethyldiethoxysilane;

the at least one polyol is at least one member selected from the group consisting of glucose, xylitol, mannitol, sorbitol, resorcinol, pyrogallol, hydroquinone, salicylic acid, and glycerol.

Claims 2-5 (Cancelled).

Claim 6 (Currently Amended): The composition as claimed in claim 1, wherein:

composition (A) comprises~~the component (iv)~~ the further alkoxysilane or alkoxysiloxane, the cocondensate of composition (B) is formed from the further alkoxysilane or alkoxysiloxane, and the reaction product of composition (C) is formed from -the further alkoxysilane or alkoxysiloxane ~~is employed~~; and

~~the component (iv) comprises~~ the further alkoxysilane or alkoxysiloxane is at least one member selected from the group consisting of tetraethoxysilane, oligomeric tetraalkoxysilane, propyltrimethoxysilane, propyltriethoxysilane, octyltrimethoxysilane, octyltriethoxysilane, alcoholic and/or aqueous compositions of oligomeric cocondensates composed of aminoalkylalkoxysilanes and of fluoroalkylalkoxysilanes, and oligomeric condensates or cocondensates composed of alkylalkoxysilanes and/or of vinylalkoxysilanes.

Claim 7 (Currently Amended): The composition as claimed in claim 1, wherein:

~~the component (v) is employed~~ composition (A) comprises the at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, the cocondensate of composition (B) is formed from the at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide, and the reaction product of composition (C) is formed from the at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide; and

~~the component (v) comprises~~ the at least one nano- or microscale semimetal oxide or metal oxide, semimetal oxide hydroxide or metal oxide hydroxide, or semimetal hydroxide or metal hydroxide is at least one member selected from the group consisting of precipitated or fumed silica, silicates, aluminum oxides, aluminum oxide hydroxides, and aluminum hydroxide.

Claim 8 (Currently Amended): The composition as claimed in claim 1, wherein the organic solvent ~~comprises~~ is a straight-chain or branched, aliphatic or cycloaliphatic or araliphatic or aromatic alcohol.

Claim 9 (Previously Presented): The composition as claimed in claim 1, further comprising a photoinitiator.

Claim 10 (Previously Presented): The composition as claimed in claim 1, wherein the composition comprises from 10 to 60% by weight of solids.

Claim 11 (Withdrawn): A process for preparing an organosilane-based composition for producing a barrier layer for gases as claimed in claim 1, which comprises:

a) mixing together components (i), (ii), (iii), where appropriate (iv), where appropriate solvents and water, and permitting the mixture to react at room temperature; or

b) forming an initial charge from components (i), (ii), and, where appropriate, (iv), heating the mixture, adding component (iii), where appropriate dissolved in a solvent, and adding water, and permitting the mixture to react at reflux; or

c) forming an initial charge from components (i), (ii), where appropriate (iv), where appropriate solvents, and, where appropriate, component (v), with thorough mixing, heating the mixture, adding component (iii), where appropriate dissolved in a solvent, and adding water, and permitting the mixture to react at reflux; or

d) dispersing fine-particle silica in vinylsilane, adding the other components, and reacting the mixture at room temperature or at reflux,

wherein there is a molar ratio (i) : (ii) : (iii), wherein (i) = 1 and (ii) = from 0.5 to 1.5 and (iii) = from 0.3 to 1.1.

Claim 12 (Withdrawn): The process as claimed in claim 11, wherein use is made of from 0.5 to 1.8 mol of water per mole of silicon of components (i), (ii), and (iv).

Claim 13 (Withdrawn): The process as claimed in claim 11, wherein the amount used of component (v) is from 0.01 to 40% by weight, based on the entirety of components (i) to (iv).

Claim 14 (Withdrawn): The process as claimed in claim 11, wherein the reaction is carried out at a temperature in the range from 10 to 90°C and for a period of from 1 to 36 hours.

Claim 15 (Withdrawn): A packaging material, comprising:

a plastic, paper, cardboard, or paperboard substrate; and

a barrier layer;

wherein the barrier layer is formed from the composition of claim 1.

Claim 16 (Withdrawn): A composite structure, comprising:

a barrier layer; and

at least one further coating applied as an outer layer to the barrier layer;

wherein:

the barrier layer is formed from the composition of claim 1; and

the at least one further coating is capable of curing by a thermal, free-radical, or radiation method.

Claim 17 (Withdrawn): The composite structure as claimed in claim 16, wherein:

the outer layer is formed by applying a coating composition to a cured first barrier layer and then curing, or by applying a coating composition to an uncured first barrier layer and then curing;

the coating composition comprises a binder curable by UV radiation or electron beam radiation; and

the coating composition comprises inorganic lamellar particles.

Claim 18 (Withdrawn): The composite structure as claimed in claim 17, wherein the binder comprises at least one member selected from the group consisting of acrylates, urethane-derived acrylates, epoxy-derived acrylates, cycloaliphatic epoxides, and polyepoxides.

Claim 19 (Withdrawn – Currently Amended): The ~~composition~~ composite structure as claimed in claim 17, wherein the lamellar particles comprise at least one member selected from the group consisting of phyllosilicates and lamellar metal pigments.

Claim 20 (Withdrawn – Currently Amended): The ~~composition~~ composite structure as claimed in claim 16, wherein:

the further coating comprises a lacquer;

the lacquer comprises a photoinitiator and at least one reaction product derived from fine pulverulent silicate, organofunctional silane, and water.

Claim 21 (Withdrawn): A packaging material composed of plastic, paper, cardboard, or paperboard, which has been coated with a barrier layer composed of a cured composition as claimed in claim 1.

Claim 22 (Withdrawn): The packaging material as claimed in claim 21, which has been coated with a further cured outer layer which has been arranged on the barrier layer and has been produced by applying and curing a coating composition which comprises a binder curable by UV radiation or electron beams and comprises inorganic lamellar particles.

Claim 23 (Withdrawn): The packaging material as claimed in claim 21, which is sheet-like and takes the form of foils, sheets, or webs.

Claim 24 (Withdrawn): The packaging material as claimed in claim 21, which takes the form of three-dimensional hollow articles.